corresponding to each of said plurality of data elements to descramble each of said plurality of data elements.

REMARKS

The Examiner's careful consideration of the application is sincerely appreciated. In light of the above amendatory matter and remarks to follow, reconsideration and allowance of this application are requested.

Claims 1-7 and 120-121, as originally presented, were patentably distinct over the prior art cited by the Examiner, and in full compliance with the requirements of 35 U.S.C. §112. Changes made to these claims are presented, not for the purpose of patentability within the meaning of 35 U.S.C. §§101, 102, 103, or 112, but simply to clarify the invention and to round out the scope of protection to which Applicants are entitled.

At paragraph 8 of the Final Office Action of May 8, 2002, and as further maintained in the Advisory Action of August 7, 2002, the Examiner rejected claims 1, 3-7 and 120-122 are rejected under 35 U.S.C. 102(e) as being anticipated by Kurihara (6,069,956). Applicants submit that claim 122 has been canceled. This rejection is respectfully traversed as applied to the remainder of the claims.

As is set forth in amended independent claims 1 and 120, a subscriber authorization system generates a different scramble key for each data element (type of data sequence) contained in a transmitted transport data stream. Thus, as is claimed, different scramble keys are generated and assigned, respectively, to the video data, main audio data, sub-audio data, and private data, for example, constituting the plurality of data elements. This is only possible because the data elements are scrambled prior to being multiplexed. To optimize security, the subscriber authorization system updates all of these scramble keys.

The Examiner has stated that "Element 21 of figure 2 anticipates the first part of the first clause of claim 1...[and] Lines 63-64 of column 7 anticipate periodic scramble key updates...[and] Lines 19-26 of column 16 anticipate scramble means." The Examiner also stated "With respect to claim 120, lines 28-29 of column 10 show an enciphered scramble key." However, Applicants submit that while Kurihara may show the information of the time-division frame and the scramble keys being updated, a single scramble key is applied to more than one data element (see col. 9, lines 1-5 and Figs. 12, 13). Therefore, the reference fails to disclose that each data element is scrambled with a different scramble key, and that all of these scramble keys are updated at predetermined intervals.

Therefore, withdrawal of the rejections to claim 1 under 5 U.S.C. §102(e) is respectfully requested. For reasons similar to those described above with regard to claim 1, withdrawal of the rejections to independent claim 120, as amended herein, is respectfully requested. Accordingly, Applicants submit, therefore, that the present application is in condition for allowance. An early notice to this effect is respectfully solicited.

Claims 2-5, and 121 are dependent from one of claims 1 and 120, and, due to such dependency are distinguishable for the same reasons as the independent claims. Therefore, withdrawal of the rejections to claims 2-5 and 121 is respectfully requested.

In light of the above, Applicants' representative traverses the Examiner's rejections and respectfully submits that the references, alone or in combination do not teach or suggest all of the features of the present invention, as claimed. In view of the foregoing amendments and remarks, it is believed that all of the claims now in this application are patentable over the prior art. Early and favorable consideration thereof is solicited. On the basis

of the above amendments and remarks, reconsideration and allowance of this application are respectfully requested.

The above statements concerning the disclosures in the cited references represent the present opinion of Applicants' representative and, in the event that the Examiner disagrees, Applicants' representative respectfully requests the Examiner specifically indicate those portions of the respective references providing the basis for a contrary view.

In the event that additional cooperation in this case may be helpful to complete its prosecution, the Examiner is cordially invited to contact Applicants' representative at the telephone number listed below.

The Commissioner is hereby authorized to charge any insufficient fees or credit any overpayment associated with the above-identified application to Deposit Account 50-0320.

Respectfully submitted,

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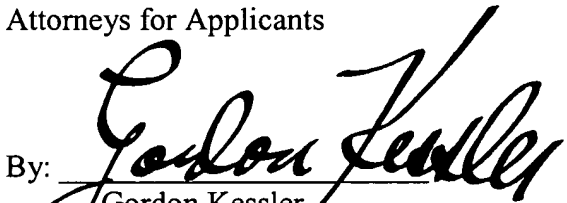
By: 
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VERSION WITH MARKINGS TO SHOW CHANGES MADE

Claims 1 and 120 have been amended as follows:

1. (Twice Amended) A data multiplexing device which multiplexes [and transmits transport stream packets of program data comprising] a plurality of data elements [constructed in the form of transport stream packets, said device] and transmits said multiplexed data elements as a transport data stream, comprising:

scramble key generation means for generating a plurality of scramble [key] keys, one corresponding to each of said plurality of data elements, wherein each of said scramble [key] keys is updated at predetermined intervals; and

scramble means for scrambling [a corresponding] said plurality of data [element] elements by using [a] said corresponding one of said scramble [key] keys generated by said scramble key generation means to scramble a corresponding one of each of said plurality of data elements.

120. (Twice Amended) A data reception device for receiving a transport data stream including multiplexed data obtained by multiplexing [transport stream packets of program data comprising] a plurality of data elements [constructed in the form of transport stream packets], said data reception device comprising:

scramble key extract means for extracting from said multiplexed data [an] a plurality of enciphered scramble [key] keys, one corresponding to each data element, wherein each of said enciphered scramble [key] keys is updated at predetermined intervals; and

descramble means for descrambling said transport data stream [packet for each data element contained in said multiplexed data] including said plurality of data elements by

using a scramble key extracted by said scramble key extract means corresponding to each of said plurality of data elements to descramble each of said plurality of data elements.